

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Attorney Docket No.: JAO 32430A

Date: January 7, 2000

Assistant Commissioner for Patents
Washington, D.C. 20231

BOX PATENT APPLICATION

CONTINUING APPLICATION TRANSMITTAL
RULE 1.53(b)

Sir:

Transmitted herewith for filing under 37 C.F.R. §1.53(b) is a

☒ Continuation ☐ Divisional ☐ Continuation-in-Part

application of prior pending Application No. 08/879,627, filed June 20, 1997.For (Title): DATA PROCESSING APPARATUSBy (Inventors): Chris MARSHALL and Katsuhisa MURAMATSU

1. ☒ A Declaration and Power of Attorney is attached. The attached Declaration and Power of Attorney is:
 - ☒ a. A copy of the Declaration and Power of Attorney from the parent application. (Used with the same or fewer inventors and (a) a copy of the prior application or (b) a revised, reformatted or edited version of the prior application that does not contain new matter.)
 - ☐ b. A new Declaration and Power of Attorney. (Used with the same, fewer or additional inventors and (a) a copy of the prior application, (b) a revised, reformatted or edited version of the prior application that does not contain new matter, or (c) a new specification.)
2. ☒ The filing fee is calculated below:

CLAIMS IN THE APPLICATION AFTER ENTRY OF
ANY PRELIMINARY AMENDMENT NOTED BELOW

FOR:	NO. FILED	NO. EXTRA
BASIC FEE		
TOTAL CLAIMS	20 - 20	= *0
INDEP CLAIMS	3 - 3	= *0
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIMS PRESENTED		

* If the difference is less than zero, enter "0".

SMALL ENTITY

RATE	FEE
	\$ 345
x 9 =	\$
x 39 =	\$
+130 =	\$
TOTAL	\$

OTHER THAN A
SMALL ENTITY

RATE	FEE
	\$ 690
x 18	\$ 0
x 78	\$ 0
+260	\$ 0
TOTAL	\$ 690

3. ☒ Check No. 105562 in the amount of \$690.00 to cover the filing fee is attached. The Commissioner is hereby authorized to charge any other fees that may be required to complete this filing, or to credit any overpayment, to Deposit Account No. 15-0461. Two duplicate copies of this sheet are attached.
4. ☒ Cancel claims 2, 3, 10, 11 and 18 of the application before calculating the filing fee. At least one independent claim is retained for filing purposes.

DEPOSIT ACCOUNT USE
AUTHORIZATION

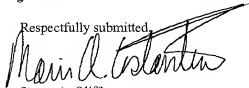
Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461

5. ☒ Amend the specification by inserting before the first line the sentence:
--This is a ☒ Continuation ☐ Division ☐ Continuation-in-Part of Application No. 08/879,627 filed June 20, 1997, which in turn is a _____. The entire disclosure of the prior application(s) is hereby incorporated by reference herein in its entirety.--
6. ☒ Formal drawings (Figs. 1-8) are attached.
7. ☐ Priority of foreign application(s) No. _____ filed _____ in _____ is claimed under 35 U.S.C. §119 and/or §365(b).
☐ The certified copy was filed in prior Application No. _____ on _____.
☐ A certified copy of the above foreign application(s) is filed herewith.
8. ☐ Priority of U.S. Provisional Application(s) No. _____ filed _____ is claimed under 35 U.S.C. §119.
☐ Amend the specification by inserting before the first line the sentence:
--This nonprovisional application claims the benefit of U.S. Provisional Application(s) No. _____ filed _____.--
9. ☒ The prior application is assigned of record to Nikon Corporation recorded at Reel 8627, Frame 0222.
10. ☐ This application is filed by fewer than all the inventors named in the prior application (37 C.F.R. §1.53(b)(1)). Delete the following inventor(s) named in the prior application:

11. ☒ A Preliminary Amendment is attached. Claims added by this Amendment are properly numbered consecutively beginning with the number next following the highest numbered claim in the application.
12. ☒ An Information Disclosure Statement is attached.
13. ☐ Small entity status:
☐ a. A small entity statement is attached.
☐ b. A small entity statement was filed in the parent application and such status is still proper and desired.
☐ c. Small entity status is no longer claimed.
14. ☒ Other: Petition for Extension of Time
15. ☒ The power of attorney in the application is to James A. Oliff, Registration No. 27,075, William P. Berridge, Registration No. 30,024, Kirk M. Hudson, Registration No. 27,562, Thomas J. Pardini, Registration No. 30,411, Edward P. Walker, Registration No. 31,450, Robert A. Miller, Registration No. 32,771, Mario A. Costantino, Registration No. 33,565 and/or Caroline D. Dennison, Registration No. 34,494.
☒ a. The power appears in the attached Declaration and Power of Attorney.
☐ b. Since the power does not appear in the attached Declaration and Power of Attorney, a substitute Power of Attorney is also attached.
16. ☒ Address all future communications to:

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Respectfully submitted,



James A. Oliff
Registration No. 27,075

Mario A. Costantino
Registration No. 33,565

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Chris MARSHALL and Katsuhisa MURAMATSU

Group Art Unit: 2755

Application No.: Rule 53(b) Continuation of 08/879,627 Examiner: Y. Cherubin

Filed: January 7, 2000

Docket No.: JAO 32430A

For: DATA PROCESSING APPARATUS

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to initial examination on the merits, please amend the above-identified application as follows:

IN THE CLAIMS:

Please cancel claims 2, 3, 10, 11 and 18 without prejudice or disclaimer.

Please amend claims 1, 4, 5, 7, 9, 12, 13, 15, 17, 19 and 21 as follows:

1. (Amended) A data processing apparatus that performs, in a predetermined order, one or more processes from among a plurality of processes, on predetermined data, the data processing apparatus comprising:

storage means for storing a plurality of functions, each function [describing a predetermined process and identifying a next function to be executed after execution of the predetermined process of the function] including one of the plurality of processes and a call-out command that calls out a next one of the plurality of functions;

execution means for executing the [predetermined] process described by each
of the plurality of functions [function]; and

[change] call out means for [changing the identification of the next function to
be called by any of the functions stored in the storage means, wherein the order in which the
predetermined processes described by the functions stored in the storage means are executed
by the execution means can be changed by the change means] calling out the next one of the
plurality of functions from the storage means in accordance with the call-out command of a
function being executed by the execution means after the process of the function being
executed by the execution means is completed.

4. (Amended) The data processing apparatus of claim 1, wherein the execution
means repeatedly executes the [predetermined] process of each of the plurality of functions
[function] for only a predetermined number of times in accordance with predetermined
repetition information.

5. (Amended) The data processing apparatus of claim 1, [wherein the] further
comprising change means [changes the identification of the next function to be executed to
another function stored in the storage means] for changing the call-out command of the
functions from a first one of the plurality of functions to a second one of the plurality of
functions.

Claim 7, line 2, delete "predetermined".

9. (Amended) A data processing apparatus that performs, in a predetermined
order, one or more processes from among a plurality of processes, on predetermined data, the
data processing apparatus comprising:

a memory that stores a plurality of functions, each function [describing a
predetermined process to be performed on the predetermined data and identifying a next

function to be executed after execution of the predetermined process] including one of the plurality of processes and a call-out command that calls out a next one of the plurality of functions; and

a controller that executes the [predetermined] process described by each of the plurality of functions [function] and that [enables changing of the identification of the next function to be called by any of the functions stored in the memory, wherein the order in which the predetermined processes described by the functions stored in the memory are executed by the controller can be changed by changing the next function identification that is stored for the functions in the memory] calls out the next one of the plurality of functions from the memory in accordance with the call-out command of a function being executed by the controller after the process of the function being executed by the controller is completed.

12. (Amended) The data processing apparatus of claim 9, wherein the controller repeatedly executes the [predetermined] process of each [function] of the plurality of functions for only a predetermined number of times in accordance with predetermined repetition information.

13. (Amended) The data processing apparatus of claim 9, wherein the controller [changes the identification of the next function to be executed to another function stored in the memory] can change the call-out command of the functions from a first one of the plurality of functions to a second one of the plurality of functions.

Claim 15, line 2, delete "predetermined".

17. (Amended) A method of processing data in which one or more processes from among a plurality of processes, are performed, in a predetermined order, on predetermined data, the method comprising the steps of:

storing in memory a plurality of functions, each function [describing a predetermined process to be performed on the predetermined data and identifying a next function to be executed after execution of the predetermined process of the function] including one of the plurality of processes and a call-out command that calls out a next one of the plurality of functions; and

executing the one or more processes in the predetermined order by calling out the next one of the plurality of functions from the memory in accordance with the call-out command of a function being executed after the process of the function being executed is completed. [predetermined process described by each function and then proceeding to the next identified function; and

changing the identification of the next function to be called by any of the functions stored in the memory, wherein the order in which the predetermined processes described by the functions stored in the memory are executed can be changed.]

19. (Amended) The method of claim 17, wherein the [predetermined] process of each of the plurality of functions [function] is repeatedly executed for only a predetermined number of times in accordance with predetermined repetition information.

Claim 21, line 2, delete "predetermined".

Please add the following claims 23-25:

--23. The data processing apparatus of claim 1, wherein the call-out command includes an address of the next function in the storage means.--

--24. The data processing apparatus of claim 9, wherein the call-out command includes an address of the next function in the memory.--

--25. The method of claim 17, wherein the call-out command includes an address of the next function in the memory.--

REMARKS

Claims 1, 4-9, 12-17 and 19-25 are pending. By this Amendment, claims 1, 4, 5, 7, 9, 12, 13, 15, 17, 19 and 21 are amended, claims 23-25 are added, and claims 2, 3, 10, 11 and 18 are canceled. The claims are amended as was done in the April 12, 1999 Amendment filed in the parent application. In the near future, Applicants will submit a further Response addressing the July 9, 1999 final rejection made in the parent application. The Examiner is requested to contact Applicants' undersigned attorney if such a Response is not present in the Patent Office's file when the Examiner picks-up this application for examination.

Respectfully submitted,



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DATA PROCESSING APPARATUS

BACKGROUND OF THE INVENTION

1. Field of the Invention

5 This invention relates to data processing apparatus, and in particular to a data processing apparatus that is capable of rapidly performing an optimum process by, for example, calling the next function that is to be executed.

2. Description of Related Art

10 Image data is captured from a scanner or the like. Due to the storage capacity limits of a memory that stores the captured image data, the image data can be separated into regions, with the respective regions being captured.

15 The captured image data can be displayed on a display device, or printed on paper before image processing is performed on the captured image data. A number of different data processing operations can be performed on the image data including, for example, a
20 gamma compensation process, a resolution-conversion process, and an outline-adjustment process. These processes must be executed in an appropriate order according to the circumstances. Typically, the order of calling the processes is predetermined and the processes
25 are performed according to the predetermined order before the image data is captured. A processing order for such an example will be described by referring to the flowchart shown in Fig. 6.

Initially in step S1, the optimum processing
30 order is determined, and processing order data, as shown in Fig. 7, is generated. As illustrated in Fig. 7, the processing order data consists of arrangement-type variables (arranged variables), i.e., a plurality of elements arranged in sequential order. The memory
35 address of a function to be called is stored in each element. According to this example, the memory address

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of image processing function A is stored in the first element of the arranged variables, the memory address of image processing function C is stored in the second element, the memory address of image processing function D is stored in the third element, and the memory address of image processing function B is stored in the fourth element.

In step S2, the next image is captured from an input device such as a scanner. At this time, each region separated from the image data is input as described above. In step S3, according to the processing order data generated in step S1, predetermined image processing operations are sequentially executed on each region of the input image data. In the case of this example, the processing order data as shown in Fig. 7 is generated in step S1, thus, image processing functions A to D are called and are executed in the order of image processing functions A, C, D and B.

In step S4, a determination is made as to whether or not image processing has been performed for all the regions of the image data. If the image processing has not been performed for all the regions of the image data, the process returns to step S2, where the steps from step S2 to step S4 are repeatedly executed. If the image processing has been performed for all the regions of the image data, the process terminates.

The functions are executed by storing the memory addresses of the functions to be called into the elements of arranged variables, and sequentially calling the functions corresponding to the addresses stored in the elements of the arranged variables. This is, however, time-consuming if a new function needs to be inserted between adjacent functions.

For example, in order to insert image processing function E as the second element of the arranged variables shown in Fig. 7, the addresses previously stored as the second and higher elements of the arranged

variables are moved by one, and then the address of the new image processing function E is inserted in the unoccupied second element, which thus consumes time.

When one of the intermediate functions is deleted, the addresses positioned after the element corresponding to the deleted function are sequentially moved to occupy the element of the arranged variables, in which the corresponding address had been stored. This also consumes time.

When the arranged variables are dynamically reserved, the overhead in adding new data increases.

In addition, when the memory address of a function to be called is stored in each element of the arranged variables, the number of functions to be called is limited by the limited number of elements of the arranged variables. Accordingly, only a limited number of functions can be executed. For example, in the case of the arranged variables shown in Fig. 7, more than six functions cannot be executed.

SUMMARY OF THE INVENTION

In view of the foregoing, the present invention has been realized, according to which optimum types of processing can be rapidly performed on data.

Embodiments of the present invention relate to a data processing apparatus that performs, in a predetermined order, one or more processes from among a plurality of processes, on predetermined data. The data processing apparatus includes a storage means (such as a memory) for storing a plurality of functions, each function describing a predetermined process and identifying a next function to be executed after execution of the predetermined process of the function, execution means (e.g., a controller) for executing the predetermined process described by each function, and change means (e.g., the controller) for changing the identification of the next function to be called by any of the functions stored in the storage means.

Accordingly, the order in which the predetermined processes described by the functions stored in the storage means are executed by the execution means can be changed by the change means.

5 The data processing apparatus also can include determination means for determining whether or not each of the functions identifies a next function after the predetermined process of the function has been executed.

10 The determination means can perform the determination in accordance with predetermined information indicating whether or not the next function is identified.

15 The execution means can repeatedly execute the predetermined process of each function for only a predetermined number of times in accordance with predetermined repetition information.

 The change means can change the identification of the next function to be executed to another function stored in the storage means.

20 The predetermined data can include image data, in which case, the predetermined processes are image processes including a gamma compensation process, a resolution-conversion process and an outline-adjustment process.

25 The predetermined data can include sound data.

BRIEF DESCRIPTION OF THE DRAWINGS

 The invention will be described in conjunction with the following drawings in which like reference numerals designate like elements and wherein:

30 Fig. 1 is a block diagram of an image processing apparatus, which is one type of a data processing apparatus, according to an embodiment of the present invention;

35 Fig. 2 is a flowchart showing the operation of each function stored in an image-processing-function storage unit shown in Fig. 1;

Fig. 3 illustrates conditions in which each function calls a next function;

Fig. 4 is a flowchart showing another operation of each function;

5 Fig. 5 illustrates conditions in which a function calls the next function after executing identical processing only three times;

Fig. 6 is a flowchart showing a conventional process that executes a plurality of functions in a predetermined order in accordance with processing order data;

Fig. 7 illustrates the structure of processing order data; and

Fig. 8 illustrates a condition in which new data is inserted into processing order data.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Fig. 1 is a block diagram of an image processing apparatus, which functions as one type of data processing apparatus, according to an embodiment of the present invention. An image processor 2 included in an image processing apparatus 1 includes an image-processing-function storage unit 13. The image processor 2 reads image data from a scanner 5, and performs image processing for the read image data by sequentially executing a plurality of image processing functions stored in the image-processing-function storage unit 13 in accordance with commands from a controller 3.

The controller 3 includes a central processing unit (CPU), a read-only memory (ROM) and a random access memory, and controls each component in accordance with a control program stored in the RAM. For example, the controller 3 provides the image processor 2 with a plurality of types of processing commands, and obtains the results of processes performed by the image processor 2. A video random access memory (VRAM) 4 stores the processing results provided from the image processor 2, and provides them to a display device 6. The display

device 6 displays an image corresponding to the processing results provided from the VRAM 6.

By referring to the flowchart in Fig. 2, an operation of each function will be described below.

5 Initially in step S11, a function executes a particular type of image processing operation. In step S12, a determination is made as to whether or not the function calls a next function. For example, this determination is made in accordance with a state of a flag that indicates whether or not to execute the next function. For example, if the flag value is one, the next function is executed. If the flag value is zero, the function process returns to its start. The value of the flag is set by the image processor 2.

10 In step S12, if it is determined that the function calls the next function, flow proceeds to step S13 to call the next function. When the process of step S13 has terminated, or when it is determined that the function has not called the next function in step S12, the function process terminates and returns to its start.

15 Fig. 3, which refers to Fig. 2, shows an example where functions A, B and C are called, and the process of each function is executed. Initially, image processing function A is called by the image processor 2, and the process of image processing function A is executed. Termination of the process calls the next function. In this case, image processing function C is called.

20 When image processing function C has been called, the process of image processing function C is executed. Termination of the process calls the next function. In this case, image processing function B is called. When image processing function B has been called, the process of image processing function B is executed. The function then returns to the former process. Image processing function C then returns to its former process since calling the next function has terminated. Image processing function A returns to the former process since

calling the next function has terminated. In such a manner, image processing functions A, C and B are called and are executed in that order.

Fig. 4 shows a flowchart of another operation of each function. Initially in step S21, a function executes image processing. In step S22, a determination is made as to whether or not to call the next function. In other words, this determination is made in accordance with a flag showing whether or not to execute the next function. For example, if the flag value is one, the next function is executed. If the flag value is zero, the function process returns to its start. Again, the flag is set by the image processor 2.

In step S22, if it is determined to call the next function, flow proceeds to step S23, where the next function is called. If it is determined not to call the next function, flow proceeds to step S24, where it is determined whether or not to repeat the process of step S21 (former processing).

For example, the number of repetitions is set in a predetermined flag by the image processor 2. Whenever the process of step S21 is executed, the flag value is decremented by 1. In step S24, if the flag value is more than zero, it is determined to execute the former process again. If the flag value is zero or less, it is determined not to execute the former process again.

In step S24, if it is determined to execute the former process again, flow returns to step S21 and the processes positioned after step S21 are again executed. These processes are repeatedly executed for only the number of times set in the predetermined flag. When the process of step S24 has terminated, or when it is determined not to execute the former process again, processing of the function terminates and returns to its start.

Accordingly, as shown in Fig. 5, for example, the predetermined process of image processing function C can

be repeatedly executed three times. In other words, the image processor 2 sets the value of three (3) in the predetermined flag that designates the number of times that the process of image processing function C is to be performed. The image processing function C repeatedly executes the function process only three times in accordance with the flag as described with reference to Fig. 4.

This is effective for sequentially executing identical image processing operations for each image data only three times when, for example, the image data consists of red (R), green (G) and blue (B) image data.

As described above, by setting the address by which a next function can be called in a function, the optimal number of functions can be executed in a predetermined order. The number of executable functions can be increased to the storage capacity limit of a memory or the like storing the functions. A new function can be inserted after a predetermined function easily, by replacing the address of a function that is called by a function positioned just before the insertion position with the address of the new function to be inserted. The address of a function positioned just after the insertion position is set as the address of the function to be called by the new function.

In addition, each function itself calls the next function. Thus, it is only necessary to call the first function, which sufficiently eliminates the need for controlling the order of calling functions, thereby simplifying programs.

A plurality of types of processes for image data have been described in the foregoing embodiments. However, the present invention may be applied to a case in which a plurality of process types are performed on sound data and other data.

When the predetermined data includes image data, the predetermined processes can include image

processes such as, for example, a gamma compensation process, a resolution-conversion process and an outline-adjustment process.

While this invention has been described in
5 conjunction with specific embodiments thereof, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art. Accordingly, the preferred embodiments of the invention set forth herein are intended to be illustrative, not
10 limiting. Various changes may be made without departing from the spirit and scope of the invention as defined in the following claims.

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WHAT IS CLAIMED IS:

1. A data processing apparatus that performs, in a predetermined order, one or more processes from among a plurality of processes, on predetermined data, the data processing apparatus comprising:

storage means for storing a plurality of functions, each function describing a predetermined process and identifying a next function to be executed after execution of the predetermined process of the function;

execution means for executing the predetermined process described by each function; and

change means for changing the identification of the next function to be called by any of the functions stored in the storage means, wherein the order in which the predetermined processes described by the functions stored in the storage means are executed by the execution means can be changed by the change means.

2. The data processing apparatus of claim 1, further comprising determination means for determining whether or not each of the functions identifies a next function after the predetermined process of the function has been executed.

3. The data processing apparatus of claim 2, wherein the determination means performs the determination in accordance with predetermined information indicating whether or not the next function is identified.

4. The data processing apparatus of claim 1, wherein the execution means repeatedly executes the predetermined process of each function for only a predetermined number of times in accordance with predetermined repetition information.

5. The data processing apparatus of claim 1, wherein the change means changes the identification of

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the next function to be executed to another function stored in the storage means.

6. The data processing apparatus of claim 1, wherein the predetermined data includes image data.

5 7. The data processing apparatus of claim 6, wherein the predetermined processes are image processes including a gamma compensation process, a resolution-conversion process and an outline-adjustment process.

10 8. The data processing apparatus of claim 1, wherein the predetermined data includes sound data.

9. A data processing apparatus that performs, in a predetermined order, one or more processes from among a plurality of processes, on predetermined data, the data processing apparatus comprising:

15 a memory that stores a plurality of functions, each function describing a predetermined process to be performed on the predetermined data and identifying a next function to be executed after execution of the predetermined process; and

20 a controller that executes the predetermined process described by each function and that enables changing of the identification of the next function to be called by any of the functions stored in the memory, wherein the order in which the predetermined processes described by the functions stored in the memory are executed by the controller can be changed by changing the next function identification that is stored for the functions in the memory.

30 10. The data processing apparatus of claim 9, wherein the controller also determines whether or not each of the functions identifies a next function after executing the predetermined process of the function.

35 11. The data processing apparatus of claim 10, wherein the controller performs the determination in accordance with predetermined information indicating whether or not the next function is identified.

12. The data processing apparatus of claim 9, wherein the controller repeatedly executes the predetermined process of each function for only a predetermined number of times in accordance with predetermined repetition information.

13. The data processing apparatus of claim 9, wherein the controller changes the identification of the next function to be executed to another function stored in the memory.

14. The data processing apparatus of claim 9, wherein the predetermined data includes image data.

15. The data processing apparatus of claim 14, wherein the predetermined processes are image processes including a gamma compensation process, a resolution-conversion process and an outline-adjustment process.

16. The data processing apparatus of claim 9, wherein the predetermined data includes sound data.

17. A method of processing data in which one or more processes from among a plurality of processes, are performed, in a predetermined order, on predetermined data, the method comprising the steps of:

storing in memory a plurality of functions, each function describing a predetermined process to be performed on the predetermined data and identifying a next function to be executed after execution of the predetermined process of the function;

executing the predetermined process described by each function and then proceeding to the next identified function; and

changing the identification of the next function to be called by any of the functions stored in the memory, wherein the order in which the predetermined processes described by the functions stored in the memory are executed can be changed.

18. The method of claim 17, further comprising determining whether or not each of the functions

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identifies a next function after the predetermined process of the function has been executed.

- 5 19. The method of claim 17, wherein the predetermined process of each function is repeatedly executed for only a predetermined number of times in accordance with predetermined repetition information.

20. The method of claim 17, wherein the predetermined data includes image data.

- 10 21. The method of claim 20, wherein the predetermined processes are image processes including a gamma compensation process, a resolution-conversion process and an outline-adjustment process.

22. The method of claim 17, wherein the predetermined data includes sound data.

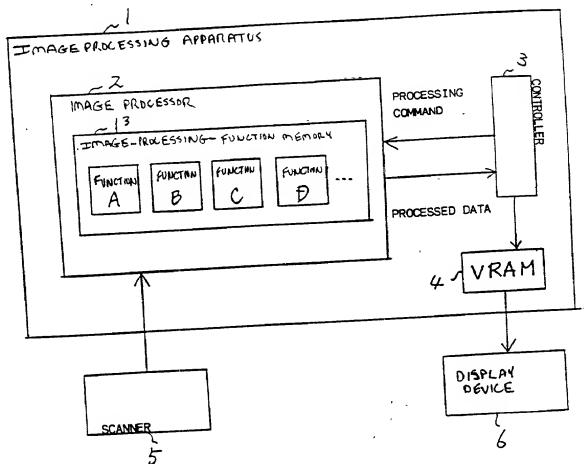
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ABSTRACT OF THE DISCLOSURE

A predetermined processing operation and an address used to identify and call a next function are provided in each function for performing predetermined data processing. The functions are stored in memory. This enables data processing operations that involve a plurality of different functions to be edited and performed easily and quickly. For example, after image processing function A has been called, image processing function A executes its predetermined process, and subsequently calls image processing function C. Image processing function C executes its predetermined process, and subsequently returns to the former process.

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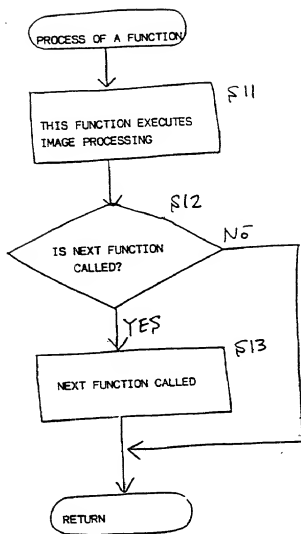
FIG. 1



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FIG. 2

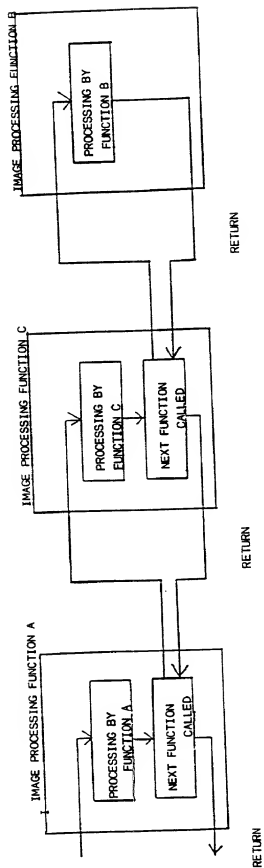
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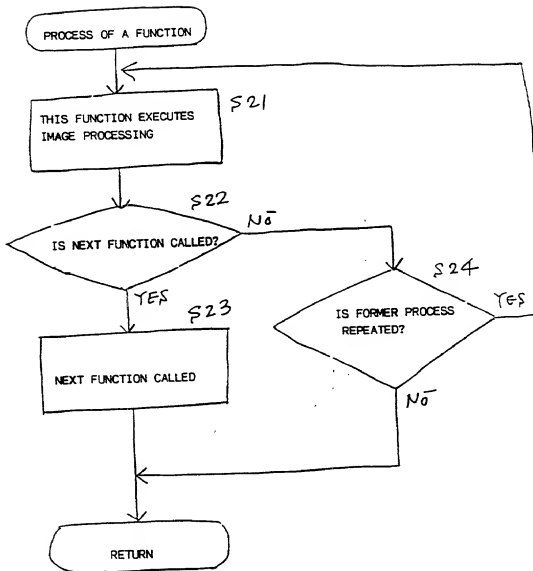
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FIG. 3



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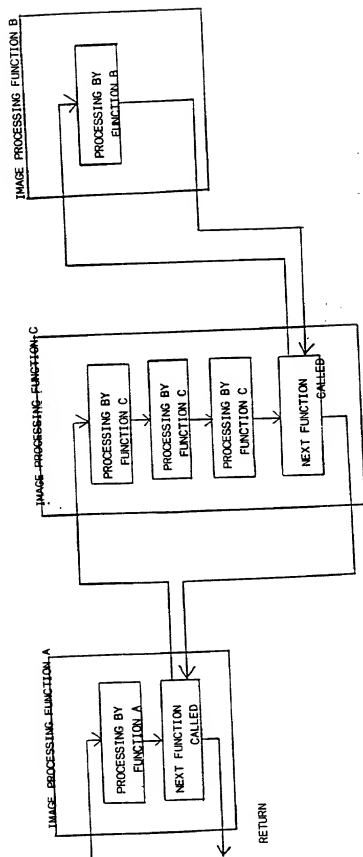
FIG. 4



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FIG. 5

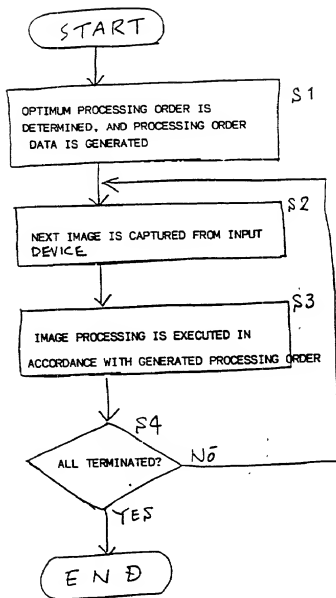
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FIG. 6

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FIG. 7

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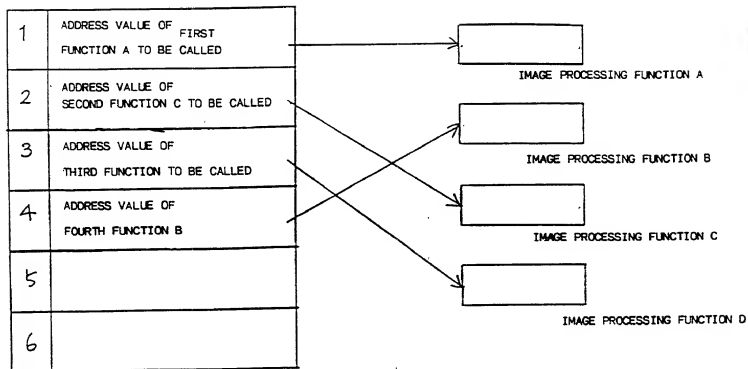
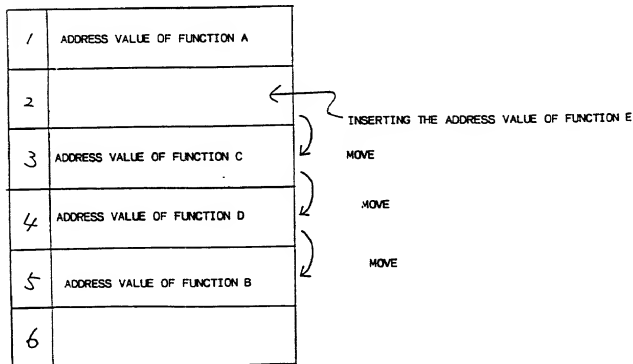


FIG. 8



I hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and/or any U.S. provisional application(s) listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

二行外三出題 假片題

優先権の主張

(Country:)

(Day Month Year Filed) (出願年月日)

(Yes + No)

(Noelle, 2002)

(Country 国名)

(Day Month Year Filed 出願年月日)

(Yes, it is)

[No value]

(Country 国名)

(Day Month Year Filed 出願年月日)

(Yes, it is)

(No 662)

駐仏は、合衆国法典第 35 章第 120 条に基づいて、下記の
合衆国特許出願の利益を主張し、本願の請求の範囲
各項に記載の主題が合衆国法典第 35 章第 112 条第 1
項に規定の様態で先の合衆国出願に開示されてい
ない限りにおいて、先の出願の出願日と本願の国内出
願日または PCT 国際出願日の間に公表された連邦
規則法典第 37 章第 1 条第 56 項に記載の必要の情報
を開示すべき義務を有することを認める。

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, in so far as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application

(Application Serial No 出願番号)

(Filing Date 花牌日)

(Status: Patented, Pending, abandoned)

现状：待許成立、通屬中、忽畢濟內

(Application Serial No. 注册编号)

(Filing Date 出願日)

(Status: Patented, Pending, abandoned)

濕杖・特許成立、係屬中、勿棄濟み

私は、ここに自己の知識にもとついて行つて陳述がすべて真実であり、自己の所有する情報および信念をこのように述べて行つた陳述が真実であると信じ、さらに故意に虚偽の陳述等を行った場合、米国法典第 18 章第 1001 条により、罰金もしくは禁錮に処せられるか、またはこれらの刑が併科される。またかかる故意による虚偽の陳述が本願ないし本願に対して与えられる特許の有効性を損なうことあることを認識し、以上の陳述を行ったことを宣言する。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon

委任状：私は下記発明者として、以下の代理人をここに選任し、本願の手続を遂行すること並びにこれに関する一切の行為を特許商標庁に対して行うことを委任する。(代理人氏名および登録番号を明記のこと)

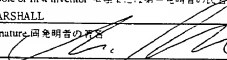
POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

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Second inventor's signature (第二発明者の署名) Katsuhisa Muramatsu	Date 日付 June 13, '97
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第三又はそれ以降の共同発明者に対して同様の情報および署名を提供すること。

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